



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,640	09/10/2003	Joseph A. MacDougald	JPP-1235DIV-1	5238
34214	7590	02/06/2006	EXAMINER	
PENTRON CORPORATION 53 NORTH PLAINS INDUSTRIAL ROAD WALLINGFORD, CT 06492			STAICOVICI, STEFAN	
			ART UNIT	PAPER NUMBER

1732

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

y

Office Action Summary	Application No.	Applicant(s)	
	10/659,640	MACDOUGALD ET AL.	
	Examiner	Art Unit	
	Stefan Staicovici	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's response filed December 21, 2005 has been entered. Claims 24-28 are pending in the instant application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 24 –26 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Brodkin et al.

Brodkin et al. teach a method of making dental material by mixing a ceramic powder with a polymer and dispensing the mixture to build a form on a platform. Brodkin et al. teach curing the shaped material on the platform to form the dental restoration. The method is anticipated because the Brodkin et al. teaches applicant's method steps. The curing step is an additional step that is permitted when the claims are drafted with “comprising” language that is open language which permits the additional process steps. [Note Claims 1-3].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brodkin et al. in view of Chadwick.

Brodkin et al. teach the invention substantially as claimed. Brodkin et al. teach a method of making dental material by mixing a ceramic powder with a polymer and dispensing the mixture to build a form on a platform. Brodkin et al. teach curing the shaped material on the platform to form the dental restoration. The method is anticipated because the Brodkin et al. teaches applicant's method steps. The curing step is an additional step which is permitted when the claims are drafted with "comprising" language which is open language which permits the additional process steps. [Note claims 1-3]. However, the Brodkin et al. do not teach the specific silicone polymer which is added to the ceramic polymer. Chadwick et al. teach making a ceramic dental restoration which includes mixing a ceramic with a polymer specifically silicone. [Note: Claims 5-6]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a dental restoration using the method as claimed in Brodkin et al. with the polymer being specifically silicone because using a silicone polymer in dental restorations has been fully taught and suggested therefore a permissible substitution for the polymer of Brodkin et al. The combined teachings of Brodkin et al. and Chadwick et al. renders applicant's claim as a whole obvious.

Response to Arguments

6. Applicants' arguments filed December 21, 2005 have been considered.

Applicants argue that Brodtkin et al. does not teach or suggest, "first making a homogeneous mixture of ceramic powder and media (binder) for dispensing" onto a platform, but rather that "the powder and binder are dispensed separately...as the dental material is built layer by layer" (see pages 2-3 of the response filed 12/21/2005). In response, it is noted that Brodtkin et al (USPN 6,322,728 B1) specifically teach forming a mixture of ceramic and binder that is then dispensed from an apparatus onto a platform to form a dental material (see col. 9, lines 14-41). Hence, it is noted that under MPEP §2123, "[A] reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. Merck & Co. v. Biocraft Laboratories, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.)

Applicants argue that because "[N]owhere...does Chadwick suggest or disclose preparing a mixture of a ceramic powder with a media such as a binder, and insuring that the mixture is homogeneous, prior to dispensing the mixture onto a built platform to form a dental material" and "Brodtkin et al. also does not disclose such a process...the combination of Brodtkin et al. and Chadwick can in no manner suggest to the skilled artisan Applicants' claimed invention" (see pages 2-3 of the response filed 12/21/2005). In response, it is noted that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Further, it is noted that

Art Unit: 1732

Brodkin et al (USPN 6,322,728 B1) specifically teach forming a mixture of ceramic and binder that is then dispensed from an apparatus onto a platform to form a dental material (see col. 9, lines 14-41). Furthermore, it is noted that the teachings of Chadwick were used to show that it is known to use a silicone polymer as a binder and not to teach preparing a mixture of a ceramic powder with a binder. It is noted that under MPEP §2144, “[T]he reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. In re Linter, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972).

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1732

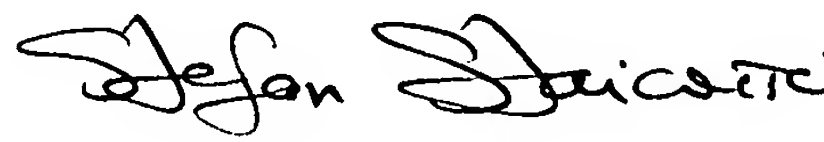
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (571) 272-1208. The examiner can normally be reached on Monday-Friday 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Colaianni, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stefan Staicovici, PhD

 2/4/06

Primary Examiner

AU 1732

February 2, 2006